

10/531357

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/531,357
Source: P4710
Date Processed by STIC: 4/21/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.2.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/531,357

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000
- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220>
 FJI Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



PCT

RAW SEQUENCE LISTING

DATE: 04/21/2005

PATENT APPLICATION: US/10/531,357

TIME: 09:55:54

Input Set : A:\38-05sequencelisting.txt

Output Set: N:\CRF4\04212005\J531357.raw

5 <110> APPLICANT: GREEN, Sol Alexander
6 FRIEL, Ellen Nicola
7 BEUNING, Lesley Leah
8 MACRAE, Elspeth Ann
12 <120> TITLE OF INVENTION: Plant alpha farnesene synthase and polynucleotides encoding
same
16 <130> FILE REFERENCE: 38-05
C--> 19 <140> CURRENT APPLICATION NUMBER: US/10/531,357
21 <141> CURRENT FILING DATE: 2005-04-14
25 <150> PRIOR APPLICATION NUMBER: PCT/NZ2003/000229
27 <151> PRIOR FILING DATE: 2003-10-15
30 <150> PRIOR APPLICATION NUMBER: NZ 521984
32 <151> PRIOR FILING DATE: 2002-10-15
36 <160> NUMBER OF SEQ ID NOS: 14
40 <170> SOFTWARE: PatentIn version 3.1
44 <210> SEQ ID NO: 1
46 <211> LENGTH: 1952
48 <212> TYPE: DNA
50 <213> ORGANISM: Malus domestica
54 <400> SEQUENCE: 1

55 ctatagcttc ttgtatccca aacatctcga gcttcttgta caccaaatta ggtattcact 60
57 atggaattca gagttcactt gcaagctgat aatgagcaga aaatttttca aaaccagatg 120
59 aaaccggaac ctgaagcctc ttacttgatt aatcaaagac ggtctgcaaa ttacaagcca 180
61 aatatttgga agaacgattt cctagatcaa tctcttatca gcaaatacga tggagatgag 240
63 tatcggaagc tgtctgagaa gttaatagaa gaagttaaga tttatatatc tgctgaaaca 300
65 atggatttag tagctaagtt ggagctcatt gacagcgtcc gaaaactagg cctcgcgaac 360
67 ctcttcgaaa aggaaatcaa ggaagcccta gacagcattg cagctatcga aagcgacaat 420
69 ctccggcaca gagacgatct ctatgggtact gcattacact tcaagatcct caggcagcat 480
71 ggctataaag tttcacaaga tatatttggt agattcatgg atgaaaaggg cacattagag 540
73 aaccaccatt tcgcgcattt aaaaggaatg ctggaacttt tcgaggcctc aaacctgggt 600
75 ttcgaagggt aagatatatt agatgaggcg aaagcttcct tgacgctagc tctcagagat 660
77 agtggtcata tttgttatcc agacagtaac ctttccaggg acgtagtcca ttcctggag 720
79 cttccatcac accgcagagt gcagtggttt gatgtcaa atggcaaatcaa cgccatgaa 780
81 aaagacattt gtcgcgtcaa cgccacgtta ctgcaattag caaagcttaa tttcaacgta 840
83 gtccaggccc aactccaaaa aaacttaagg gaagcatcca ggtgggtgggc aaatctgggc 900
85 ttcgcagaca acttgaaatt tgcaagagat agactgggtg aatgtttctc atgtgctgtg 960
87 ggagtagcat tcgagcctga gcaactcatct tttagaatat gtcttacc aaagtcataac 1020
89 ttagtactga tcatagacga cgtctatgat atttatggct cagaggaaga gctaaagcac 1080
91 ttcaccaatg ctggtgatag gtgggattct agggaaactg agcagcttcc agagtgtatg 1140
93 aagatgtgtt tccaagtact ctacaacact acttggtgaaa ttgctcgtga aattgaggag 1200
95 gagaatgggt ggaaccaagt attacctcaa ttgaccaaag tgtgggcaga tttttgtaaa 1260
97 gcattattgg tggaggcaga gtggtataat aagagccata taccaaccct tgaagagtac 1320
99 ctaagaaacg gatgcatttc atcatcagtt tcagtgcatt tggttcactc gtttttctct 1380
101 ataactcatg agggaaacca agagatggct gattttcttc acaagaatga agatcttttg 1440

pp 3-5

Does Not Comply
Corrected Diskette Name

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/531,357

DATE: 04/21/2005

TIME: 09:55:54

Input Set : A:\38-05sequencelisting.txt

Output Set: N:\CRF4\04212005\J531357.raw

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103 tataatatct ctctcatcgt tcgcctcaac aatgatttgg gaacttccgc ggctgaacaa 1500
105 gagagagggg attctccttc atcaatcgta tgttacatga gagaagtga tgcctctgaa 1560
107 gaaacagcta ggaagaacat taagggcatg atagacaatg catggaagaa agtaaatagga 1620
109 aaatgcttca caacaaacca agtgcccttt ctgtcatcat tcatgaacaa tgccacaaac 1680
111 atggcacgtg tggcgcacag cctttacaaa gatggagatg ggtttggtga ccaagagaaa 1740
113 gggcctcgga cccacatcct gtctttacta ttccaacctc ttgtaaacta gtactcatat 1800
115 agtttgaaat aaatagcagc aagaagtttg cggttcagtt cgtcatggat aaattaatct 1860
117 ttacagtttg taacgttggt gcacaaagat tatgaataaa aagttgtagt ttgtcgttta 1920
119 ttttttaaaa aaaaaaaaaa aaaaaaaaaa aa 1952
122 <210> SEQ ID NO: 2
124 <211> LENGTH: 576
126 <212> TYPE: PRT
128 <213> ORGANISM: Malus domestica
132 <400> SEQUENCE: 2
134 Met Glu Phe Arg Val His Leu Gln Ala Asp Asn Glu Gln Lys Ile Phe
135 1 5 10 15
138 Gln Asn Gln Met Lys Pro Glu Pro Glu Ala Ser Tyr Leu Ile Asn Gln
139 20 25 30
142 Arg Arg Ser Ala Asn Tyr Lys Pro Asn Ile Trp Lys Asn Asp Phe Leu
143 35 40 45
146 Asp Gln Ser Leu Ile Ser Lys Tyr Asp Gly Asp Glu Tyr Arg Lys Leu
147 50 55 60
150 Ser Glu Lys Leu Ile Glu Glu Val Lys Ile Tyr Ile Ser Ala Glu Thr
151 65 70 75 80
154 Met Asp Leu Val Ala Lys Leu Glu Leu Ile Asp Ser Val Arg Lys Leu
155 85 90 95
158 Gly Leu Ala Asn Leu Phe Glu Lys Glu Ile Lys Glu Ala Leu Asp Ser
159 100 105 110
162 Ile Ala Ala Ile Glu Ser Asp Asn Leu Gly Thr Arg Asp Asp Leu Tyr
163 115 120 125
166 Gly Thr Ala Leu His Phe Lys Ile Leu Arg Gln His Gly Tyr Lys Val
167 130 135 140
170 Ser Gln Asp Ile Phe Gly Arg Phe Met Asp Glu Lys Gly Thr Leu Glu
171 145 150 155 160
174 Asn His His Phe Ala His Leu Lys Gly Met Leu Glu Leu Phe Glu Ala
175 165 170 175
178 Ser Asn Leu Gly Phe Glu Gly Glu Asp Ile Leu Asp Glu Ala Lys Ala
179 180 185 190
182 Ser Leu Thr Leu Ala Leu Arg Asp Ser Gly His Ile Cys Tyr Pro Asp
183 195 200 205
186 Ser Asn Leu Ser Arg Asp Val Val His Ser Leu Glu Leu Pro Ser His
187 210 215 220
190 Arg Arg Val Gln Trp Phe Asp Val Lys Trp Gln Ile Asn Ala Tyr Glu
191 225 230 235 240
194 Lys Asp Ile Cys Arg Val Asn Ala Thr Leu Leu Glu Leu Ala Lys Leu
195 245 250 255
198 Asn Phe Asn Val Val Gln Ala Gln Leu Gln Lys Asn Leu Arg Glu Ala
199 260 265 270
202 Ser Arg Trp Trp Ala Asn Leu Gly Phe Ala Asp Asn Leu Lys Phe Ala

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PATENT APPLICATION: US/10/531,357

DATE: 04/21/2005

TIME: 09:55:54

Input Set : A:\38-05sequencelisting.txt

Output Set: N:\CRF4\04212005\J531357.raw

203 275 280 285
 206 Arg Asp Arg Leu Val Glu Cys Phe Ser Cys Ala Val Gly Val Ala Phe
 207 290 295 300
 210 Glu Pro Glu His Ser Ser Phe Arg Ile Cys Leu Thr Lys Val Ile Asn
 211 305 310 315 320
 214 Leu Val Leu Ile Ile Asp Asp Val Tyr Asp Ile Tyr Gly Ser Glu Glu
 215 325 330 335
 218 Glu Leu Lys His Phe Thr Asn Ala Val Asp Arg Trp Asp Ser Arg Glu
 219 340 345 350
 222 Thr Glu Gln Leu Pro Glu Cys Met Lys Met Cys Phe Gln Val Leu Tyr
 223 355 360 365
 226 Asn Thr Thr Cys Glu Ile Ala Arg Glu Ile Glu Glu Glu Asn Gly Trp
 227 370 375 380
 230 Asn Gln Val Leu Pro Gln Leu Thr Lys Val Trp Ala Asp Phe Cys Lys
 231 385 390 395 400
 234 Ala Leu Leu Val Glu Ala Glu Trp Tyr Asn Lys Ser His Ile Pro Thr
 235 405 410 415
 238 Leu Glu Glu Tyr Leu Arg Asn Gly Cys Ile Ser Ser Ser Val Ser Val
 239 420 425 430
 242 Leu Leu Val His Ser Phe Phe Ser Ile Thr His Glu Gly Thr Lys Glu
 243 435 440 445
 246 Met Ala Asp Phe Leu His Lys Asn Glu Asp Leu Leu Tyr Asn Ile Ser
 247 450 455 460
 250 Leu Ile Val Arg Leu Asn Asn Asp Leu Gly Thr Ser Ala Ala Glu Gln
 251 465 470 475 480
 254 Glu Arg Gly Asp Ser Pro Ser Ser Ile Val Cys Tyr Met Arg Glu Val
 255 485 490 495
 258 Asn Ala Ser Glu Glu Thr Ala Arg Lys Asn Ile Lys Gly Met Ile Asp
 259 500 505 510
 262 Asn Ala Trp Lys Lys Val Asn Gly Lys Cys Phe Thr Thr Asn Gln Val
 263 515 520 525
 266 Pro Phe Leu Ser Ser Phe Met Asn Asn Ala Thr Asn Met Ala Arg Val
 267 530 535 540
 270 Ala His Ser Leu Tyr Lys Asp Gly Asp Gly Phe Gly Asp Gln Glu Lys
 271 545 550 555 560
 274 Gly Pro Arg Thr His Ile Leu Ser Leu Leu Phe Gln Pro Leu Val Asn
 275 565 570 575
 278 <210> SEQ ID NO: 3
 280 <211> LENGTH: 20
 282 <212> TYPE: DNA
 284 <213> ORGANISM: Made in lab
 288 <400> SEQUENCE: 3
 289 agagttcact tgcaagctga
 292 <210> SEQ ID NO: 4
 294 <211> LENGTH: 12
 296 <212> TYPE: DNA
 298 <213> ORGANISM: Made in lab
 302 <400> SEQUENCE: 4
 303 ggatgcttcc ct

First,
 See item 10
 on Error Summary
 sheet.
 20
 invalid <213> response. Use
 "Artificial Sequence" as <223> response
 same error

12

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/531,357

DATE: 04/21/2005

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Input Set : A:\38-05sequencelisting.txt

Output Set: N:\CRF4\04212005\J531357.raw

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306 <210> SEQ ID NO: 5
308 <211> LENGTH: 20
310 <212> TYPE: DNA
312 <213> ORGANISM: Made in lab
316 <400> SEQUENCE: 5
317 gcacattaga gaaccaccat                                     20
320 <210> SEQ ID NO: 6
322 <211> LENGTH: 676
324 <212> TYPE: DNA
326 <213> ORGANISM: Malus domestica
330 <400> SEQUENCE: 6
331 ctaagttgga gtcattgac agcgtccgaa aactaggcct cgcgaacctc ttcgaaaagg      60
333 aaatcaagga agccctagac agcgttgacag ctatcgaaaag cgacaatctc ggcacaagag    120
335 acgatctcta tgctactgca ttacacttca agatcctcag gcagcatggc tataaaagttt    180
337 cacaagatat atttggtaga ttcattggatg aaaagggcac attagagaac caccatttcg    240
339 cgcattttaa aggaatgctg gaacttttcg aggcctcaaa cctgggtttc gaaggtgaag    300
341 atattttaga tgaggcgaaa gcttccttga cgctagctct cagagatagt ggtcatattt    360
343 gtatccaga cagtaacctt tccagggacg tagttcattc cctggagctt ccatcacacc    420
345 gcagagtgca gtggtttgat gtcaaatggc aaatcgacgc ctatgaaaaa gacatttgtc    480
347 gcgtaacgc cacgttactc gaattagcaa agcttaattt caacgtagtt caggcccaac    540
349 tccaaaaaaa cttaaggga gcatccaggt ggtgggcaaa cctgggcatc gcagacaact    600
351 tgaaatttgc aagagataga ctggttgaat gtttcgcatg tgctgtggga gtagcattcg    660
353 agccagagca ctcac                                     676
356 <210> SEQ ID NO: 7
358 <211> LENGTH: 224
360 <212> TYPE: PRT
362 <213> ORGANISM: Malus domestica
366 <400> SEQUENCE: 7
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369 1 5 10 15
372 Phe Glu Lys Glu Ile Lys Glu Ala Leu Asp Ser Val Ala Ala Ile Glu
373 20 25 30
376 Ser Asp Asn Leu Gly Thr Arg Asp Leu Tyr Ala Thr Ala Leu His
377 35 40 45
380 Phe Lys Ile Leu Arg Gln His Gly Tyr Lys Val Ser Gln Asp Ile Phe
381 50 55 60
384 Gly Arg Phe Met Asp Glu Lys Gly Thr Leu Glu Asn His His Phe Ala
385 65 70 75 80
388 His Leu Lys Gly Met Leu Glu Leu Phe Glu Ala Ser Asn Leu Gly Phe
389 85 90 95
392 Glu Gly Glu Asp Ile Leu Asp Glu Ala Lys Ala Ser Leu Thr Leu Ala
393 100 105 110
396 Leu Arg Asp Ser Gly His Ile Cys Tyr Pro Asp Ser Asn Leu Ser Arg
397 115 120 125
400 Asp Val Val His Ser Leu Glu Leu Pro Ser His Arg Arg Val Gln Trp
401 130 135 140
404 Phe Asp Val Lys Trp Gln Ile Asp Ala Tyr Glu Lys Asp Ile Cys Arg
405 145 150 155 160
408 Val Asn Ala Thr Leu Leu Glu Leu Ala Lys Leu Asn Phe Asn Val Val

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RAW SEQUENCE LISTING

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Input Set : A:\38-05sequencelisting.txt

Output Set: N:\CRF4\04212005\J531357.raw

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409                165                170                175
412 Gln Ala Gln Leu Gln Lys Asn Leu Arg Glu Ala Ser Arg Trp Trp Ala
413                180                185                190
416 Asn Leu Gly Ile Ala Asp Asn Leu Lys Phe Ala Arg Asp Arg Leu Val
417                195                200                205
420 Glu Cys Phe Ala Cys Ala Val Gly Val Ala Phe Glu Pro Glu His Ser
421                210                215                220
424 <210> SEQ ID NO: 8
426 <211> LENGTH: 20
428 <212> TYPE: DNA
430 <213> ORGANISM: Made in lab
434 <400> SEQUENCE: 8
435 gaaaagttcc agcattcctt
438 <210> SEQ ID NO: 9
440 <211> LENGTH: 20
442 <212> TYPE: DNA
444 <213> ORGANISM: Made in lab
448 <400> SEQUENCE: 9
449 gcacattaga gaaccacccat
452 <210> SEQ ID NO: 10
454 <211> LENGTH: 20
456 <212> TYPE: DNA
458 <213> ORGANISM: Made in lab
462 <400> SEQUENCE: 10
463 cttcacaaga atgaagatct
466 <210> SEQ ID NO: 11
468 <211> LENGTH: 20
470 <212> TYPE: DNA
472 <213> ORGANISM: Made in lab
476 <400> SEQUENCE: 11
477 ttccatgcat tgtctatcat
480 <210> SEQ ID NO: 12
482 <211> LENGTH: 38
484 <212> TYPE: DNA
486 <213> ORGANISM: Made in lab
490 <400> SEQUENCE: 12
491 taatacgact cactataggg atgcttcct taagtttt
494 <210> SEQ ID NO: 13
496 <211> LENGTH: 20
498 <212> TYPE: DNA
500 <213> ORGANISM: Made in lab
504 <400> SEQUENCE: 13
505 ctggcacctt atgagaaatc
508 <210> SEQ ID NO: 14
510 <211> LENGTH: 20
512 <212> TYPE: DNA
514 <213> ORGANISM: Made in lab
518 <400> SEQUENCE: 14
519 ccacccatag aatcaagaaa

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/531,357

DATE: 04/21/2005

TIME: 09:55:55

Input Set : A:\38-05sequencelisting.txt

Output Set: N:\CRF4\04212005\J531357.raw

L:19 M:270 C: Current Application Number differs, Replaced Current Application Number